

Amendments to the claims,**Listing of all claims pursuant to 37 CFR 1.121(c)**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) In an electronic mail (e-mail) system, a method for processing a plurality of e-mail messages that are being sent to recipients at various destination domains, the method comprising:

establishing a plurality of queues in the system, zero or more of these being specific queues for handling mail to a specific set of domains, and one being a general queue for transferring e-mail to domains not handled by specific queues, each said queue being configured to spawn a number of message transport agents (MTAs) for connecting to available e-mail servers for a given domain, wherein the number of MTAs spawned for a given domain is determined based on run-time dynamics, and wherein the number of MTAs spawned for a given domain may exceed the number of the available e-mail servers for that given domain;

receiving at the system a request to process for transfer a plurality of outbound e-mail messages, each e-mail message specifying delivery to at least one recipient at a particular domain; and

for each given e-mail message, processing the given e-mail message by:

determining what domain the given e-mail message is destined for,

if the determined domain for the given e-mail message is a specific domain handled by a corresponding specific queue, assigning the given e-mail message to the corresponding specific queue for transferring the given e-mail to said specific domain, otherwise assigning the given e-mail message to said general queue, each queue maintaining a "ready" list for assigning the given e-mail message to an MTA that has indicated that it is available for work, and

without waiting for confirmation that the given e-mail message has been successfully processed for transfer to another system, proceeding to process the next one of the e-mail messages.

2. (Original) The method of claim 1, wherein said system comprises one general queue and optional specific queues.
3. (Original) The method of claim 1, wherein said at least one specific queue only handles e-mail messages that are destined for the specific queue's corresponding domain.
4. (Original) The method of claim 1, wherein said general queue handles all e-mail messages that are not processed by said at least one specific queue.
5. (Original) The method of claim 1, wherein each queue is associated with at least one message transfer agent (MTA) processing thread that establishes a connection with a recipient MTA.
6. (Original) The method of claim 5, wherein at least one queue is associated with a set comprising a plurality of MTA processing threads.
7. (Previously presented) The method of claim 6, wherein said set of MTA processing threads is dynamically configurable, for optimizing resources allocated for a given queue.
8. (Original) The method of claim 1, wherein said system receives said plurality of outbound e-mail messages from at least one composer program, which automatically composes e-mail messages based on database information.
9. (Original) The method of claim 1, wherein said system receives said plurality of outbound e-mail messages via Simple Mail Transport Protocol (SMTP).
10. (Original) The method of claim 1, further comprising:
creating at least one clone e-mail message upon encountering an e-mail message addressed to more than one recipient; and

processing each clone for transfer.

11. (Original) The method of claim 10, wherein each clone includes a reference to contents for its corresponding e-mail message, so that storage of e-mail contents is not duplicated.

12. (Original) The method of claim 1, further comprising:

in the event that a particular e-mail message cannot be successfully processed upon an initial attempt, routing the particular message to another message transport agent (MTA) which is to re-attempt transport.

13. (Currently amended) An electronic mail (e-mail) system providing parallel processing of e-mail messages, the system comprising:

a plurality of queues for processing incoming e-mail messages, at least one queue being designated as a specific queue for processing e-mail messages destined for a specific domain, wherein the queues are dynamically configurable at runtime to increase throughput via spawning multiple connections to each e-mail server for said specific domain;

a processing thread for receiving incoming e-mail messages that are to be transferred to another system, and assigning each incoming e-mail message to a particular queue based on what domain the incoming e-mail message is destined for; and

wherein a given e-mail message is assigned to said specific queue when the given e-mail message is destined for said specific domain.

14. (Original) The system of claim 13, wherein each queue controls a set of one or more message transfer agent (MTA) processing threads, each MTA processing threads capable of performing work to transfer an e-mail message to an MTA on another system.

15. (Original) The system of claim 14, wherein the actual number of MTA processing threads employed by a given queue is controlled at runtime.

16. (Original) The system of claim 14, wherein each MTA processing thread is capable of establishing a connection to an MTA on another system.

17. (Original) The system of claim 15, wherein control of the actual number of MTA processing threads employed by a given queue is based, at least in part, on how many e-mail messages are posted to the given queue at runtime.

18. (Original) The system of claim 15, wherein control of the actual number of MTA processing threads employed by a given queue is subject to a maximum limit.

19. (Original) The system of claim 13, wherein one of said queues comprises a general queue for processing e-mail messages that are destined for other domains.

20. (Original) The system of claim 19, wherein said general queue controls a set of message transfer agent (MTA) processing threads, and wherein each said MTA processing thread of the general queue is capable of transferring an e-mail message to an MTA at a domain that is different than other domains for e-mail messages processed by the set.

21. (Currently amended) An improved e-mail system, the improvement comprising:

dividing incoming e-mail messages that are to be processed for transfer into different groups, based on what domain each e-mail message is destined for;

establishing a first plurality of specific queues and accompanying processing resources for processing transfer of e-mail messages, each said specific queue handling e-mail messages destined for to a frequently encountered domain; and

establishing ~~a second~~ at least one general queue and accompanying processing resources for processing transfer of e-mail messages, each said at least one general queue handling e-mail messages destined for to less-frequently encountered domains;

wherein each said queue is configured to assign an e-mail message to a message transport agent (MTA) that is available for sending the e-mail message to a given domain, and is configured to create additional MTAs when none are available to accept work.

22. (Original) The system of claim 21, wherein each queue is associated with a set of one or more message transfer agent (MTA) processing threads, each capable of transferring an e-mail message to recipient's domain.

23. (Original) The system of claim 22, wherein the set of MTA processing threads for said first queue is dedicated to transferring e-mail messages only to said frequently encountered domain.

24. (Original) The system of claim 22, wherein the set of MTA processing threads for said second queue may transfer e-mail messages to different domains.

25. (Original) The system of claim 22, further comprising a connection cache for storing information about connections that have been made to other domains.